

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.:	10/579,364	§
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Applicants:	Tzikas et al.	§
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Filed:	May 15, 2006	§
		§
Examiner:	Klemanski	§
		§
Art Unit:	1793	§
		§
Title:	Mixtures Of Reactive Dyes And Their Use	§
		§

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO OFFICE COMMUNICATION MAILED MAY 11, 2009

Dear Sir:

Applicants submit this response, with requests for continued examination and a one (1) month extension of time, to the Office Communication mailed May 11, 2009. In view of the following remarks, Applicants request reconsideration and withdrawal of the outstanding rejections, and allowance of the claims pending in this application.

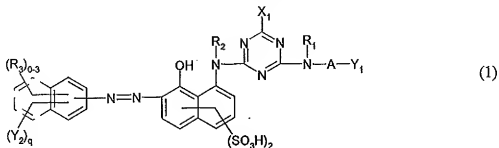
A Listing of Claims begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

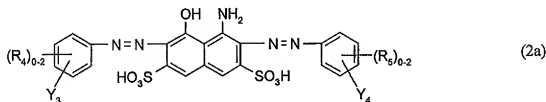
Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (previously presented): A dye mixture comprising at least one dye of formula



together with at least one dye of formula



wherein

R₁ and R₂ are each independently of the other hydrogen or unsubstituted or substituted C₁-C₄ alkyl,

(R₃)₀₋₃ denotes from 0 to 3 identical or differing substituents from the group halogen, C₁-C₄ alkyl, C₁-C₄ alkoxy, carboxy and sulfo,

A is unsubstituted or substituted phenylene, naphthylene, or C₂-C₈ alkylene which may be interrupted by oxygen,

X₁ is halogen or a non-fibre-reactive substituent,

q is the number 0 or 1,

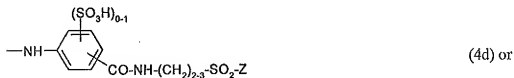
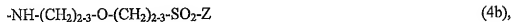
Y₁, Y₂, Y₃ and Y₄ are each independently of the others a fibre-reactive radical of formula





wherein

X_2 is halogen, T independently has the definition of X_2 , is a non-fibre-reactive substituent or is a fibre-reactive radical of formula



$(\text{R}_6)_{0-2}$ denotes from 0 to 2 identical or differing substituents from the group halogen, $\text{C}_1\text{-C}_4$ alkyl, $\text{C}_1\text{-C}_4$ alkoxy and sulfo,

Z is vinyl or a radical $-\text{CH}_2-\text{CH}_2-\text{U}$ and U is a group removable under alkaline conditions,
 Q is a group $-\text{CH}(\text{Hal})-\text{CH}_2-\text{Hal}$ or $-\text{C}(\text{Hal})=\text{CH}_2$,

m and n are each independently of the other the number 2, 3 or 4, and

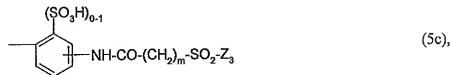
Hal is halogen, and

$(\text{R}_4)_{0-2}$ and $(\text{R}_5)_{0-2}$ denote, each independently of the other, from 0 to 2 identical or differing substituents selected from the group C_1-C_4 alkyl, C_1-C_4 alkoxy and sulfo, and one of the fibre-reactive radicals Y_3 and Y_4 is a radical of formula (3a), (3b), (3c), (3d) or (3e) and the other of the fibre-reactive radicals Y_3 and Y_4 is a radical of formula (3b) or (3f).

2. (original): A dye mixture according to claim 1, wherein R_1 is hydrogen, methyl or ethyl and R_2 is hydrogen.

3. (previously presented): A dye mixture according to claim 1, wherein X_1 is chlorine.

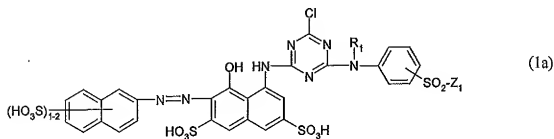
4. (previously presented): A dye mixture according to claim 1, wherein $-\text{A}-\text{Y}_1$ is a radical of formula



wherein

(R₇)₀₋₂ denotes from 0 to 2 identical or differing substituents from the group halogen,
C₁-C₄alkyl, C₁-C₄alkoxy and sulfo,
m is the number 2 or 3, and
Z₁, Z₂ and Z₃ are each independently of the others vinyl, β-chloroethyl or β-sulfatoethyl.

5. (previously presented): A dye mixture according to claim 1, wherein the dye of formula (1) is a dye of formula



wherein

R₁ is hydrogen, methyl or ethyl and

Z₁ is vinyl, β-chloroethyl or β-sulfatoethyl.

6. (cancelled):

7. (previously presented): A method of dyeing or printing of hydroxyl-group-containing or nitrogen-containing fibre material, which comprises contacting said material with a tinctorially effective amount of a dye mixture according to claim 1.

8. (previously presented): A method according to claim 7, wherein cellulosic fibre material is dyed or printed.

9. (original): An aqueous ink comprising a dye mixture according to claim 1.

10. (previously presented): A method of printing of hydroxyl-group-containing or nitrogen-containing fibre material, which comprises printing said material with an aqueous ink according to claim 9 in an inkjet printer.

11. (previously presented): A method according to claim 7, wherein cotton-containing fibre material is dyed or printed.

Remarks

Claims 1-5 and 7-11 are currently pending.

35 U.S.C. § 103

The Examiner rejected claims 1-5 and 7-11 under 35 U.S.C. § 103(a) as being unpatentable over WO 00/43455. Applicants traverse this rejection for the following reasons.

Applicants submit the Declaration of Roentgen which provides comparative data between the dye mixture of Example 28 in WO 00/43455, the closest prior art, and a corresponding dye mixture (A) according to the present invention. In particular, Example 28 of WO 00/43455 contained:

80% by weight of the dye of formula (IV-1)

8% by weight of the dye of formula (103) and

12% by weight of the dye of formula (VI-1).

In comparison, dye mixture (A) according to the present invention contained:

80% by weight of the dye of formula (102)

8% by weight of the dye of formula (103)

12% by weight of the dye of formula (VI-I).

Thus, the only difference between the dye mixture of Example 28 of WO 00/43455 and dye mixture (A) is the terminal naphthalene moiety on the dye of formula (IV-1) as compared to a terminal phenyl moiety on the dye of formula (102).

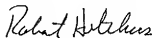
As demonstrated in Table 1 of the Declaration, the fastness to water of the dyeings using the dye mixture according to the present invention were at least one grade better than the dyeings using the dye mixture of the closest prior art. WO 00/43455

neither teaches nor suggests such a surprising and completely unexpected result. Accordingly, Applicants respectfully request the rejections based on WO 00/43455 be withdrawn.

Should any fee be due in connection with the filing of this document, the Commissioner for Patents is hereby authorized to deduct said fee from Huntsman Corporation Deposit Account No. 08-3442.

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Respectfully Submitted,



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